

> Red list mayflies, stoneflies and caddisflies

Threatened species in Switzerland, standing 2010

*Summary of the publication «Rote Listen Eintagsfliegen, Steinfliegen, Köcherfliegen»
www.bafu.admin.ch/uv-1212-d*

> Summary

The Red Lists of threatened mayflies, stoneflies and caddisflies of Switzerland have been compiled with some adaptations in accordance with the IUCN criteria (2001) and the guidelines for their application to regional and national lists (2003).

Of the 499 species evaluated (86 mayfly, 111 stonefly and 302 caddisfly species), 36 mayfly (43 % rounded), 44 stonefly (40 %) and 147 caddisfly species (51 %) are included in the Red Lists (Categories RE – regionally extinct, CR – critically endangered, EN – endangered and VU – vulnerable). A further nine mayfly, 19 stonefly and 43 caddisfly species are classified as near threatened (NT). The strongest decline can be observed in species found in the major rivers of the Swiss Central Plateau, springs, mires, small lakes and ponds. The main causes of this decline include river straightening, the construction of embankments and weirs, water abstraction for hydropower generation, the drainage or elimination of small stagnant pools and streams for land reclamation and spring water catchments over the past 150 years. The species have also been eradicated as a result of excess nutrient and pesticide inputs into their aquatic habitats.

The Red Lists for the stonefly and caddisfly are the first to be compiled for these species in Switzerland. The revised Red List of mayflies replaces the list that was first published in 1994 (Sartori et al. in Duelli 1994) and compiled on the basis of different criteria. Some of the differences between the two editions, in particular regarding conditions in the lower categories of threat, are due to the application of the new IUCN criteria. In addition, the information available about mayfly fauna has increased to such an extent that some species have proven to be more common and stable than before and could, therefore, be removed from the Red List. As opposed to this, the comparison of the current situation with that which prevailed when the previous list was compiled reveals that there has been a further deterioration in the majority of the already severely threatened species.